BRUHAT BANGALORE MAHANAGARA PALIKE

MEASUREMENT SHEET

RA 1ST AND FINAL BILL

Name of work: Improvements to Roads and Drains at Nanjappa Layout, Chamundeshwari Layout, C. Ramaiah Layout, Bloom Moon Garden, Blue Filed Garden and Surrounding area in Ward No. 10, (Doddabommasandra), Vidyaranyapura Sub Division.

Estimated Cost : Rs. 70.00 Lakhs

Head of Account : P-3603

Job Code: 010-20-000031

Name of Agency: Sri Aswathnarayana, # 38, Chanappa Layout, Sharadhamabanagar, Jalahalli Village, Bangalore – 13.

Work order No: BBMP/EE/BTP/WO/229/2019-20 D: 17.03.2020.

Measurements Recarded on : 15/06/2020

Sl No	Description	No.	L	B1	B2	Av.,B	D	Qty	Rate	Amount
1	Earthwork excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5 m, excavated surface leveled and sides neatly dressed, the disposed earth to be leveled neatly after breaking of clods complete as per specifications.								Cum	
	Qty as per Premeasurement Recorded vide E-Bill Page No. 1 to 4 is							**1216.65**	256.05	**311523.00**
2	Removing and refixing stone slabs of drains and pointing in CM (1:3)								Sqm	
	Qty as per Premeasurement Recorded vide E-Bill Page No. 5 to 6 is							**1665.00**	116.85	**194555.00**
3	Scarifying bituminous course 50mm to 75mm thick along with premix carpet / surface dressing by manual means without disturbing the base and stacking of the debris materials including cost of all labour charges complete as per specifications.								Sqm	
	Qty as per Premeasurement Recorded vide E-Bill Page No. 7 to 8 is							**2916.00**	100.16	**292067.00**
4	Providing, laying, spreading and compacting crushed stone aggregates of granite / trap / basalt to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed method of tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications.								Cum	
	Qty as per Premeasurement Recorded vide E-Bill Page No. 9 to 10 is							**670.68**	2101.14	**1409193.00**
5	Providing and applying primer coat with S.S. bitumen emulsion on prepared surface of granular base such as WMM including cleaning of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per specifications.								Sqm	
	Qty as per Premeasurement Recorded vide E-Bill Page No. 11 to 12 is							**2916.00**	31.16	**90863.00**
6	Providing and laying **bituminous macadam** on prepared surface with crushed coarse aggregates as per design mix formula for base / binding course including loading of aggregates with F.E. loader, hot mixing of stone aggregates and bitumen in hot mix plant, transporting the mixd material in tipper to paver and laying mixed materials with paver finisher to the required level and grade, rolling by power roller to achieve the desired density, but excluding cost of primer / tack coat including lead, lift and cost of all materials, labour, HOM of machineries complete as per specifications. MORTH /Chapter 5 - using **40/60 TPH capacity H.M.P. with Mechanical paver Gr-II (50 mm to 75 mm) with 3.3 % VG-30 Bitumen**								Cum	
	Qty as per Premeasurement Recorded vide E-Bill Page No. 13 to 14 is							**145.80**	5828.23	**849756.00**

Assistant Engineer

Assistant Executive Engineer

Assistant Executive Engineer.

Sl No	Description	No.	L	B1	B2	Av.,B	D	Qty	Rate	Amou
7	Cleaning the existing black topped surface with brooms, soft brushes and finally dusting with old gunny bags and / or compressed air to receive bituminous treatment including cost of all materials, labour, HOM of machineries complete as per specifications.								Sqm	
	Qty as per Premeasurement Recorded vide E-Bill Page No. 15 to 16 is							**9720.00**	5.56	**54043.00**
8	Providing and applying tack coat using 80/100 grade bitumen(VG10) on the prepared black topped surfaces at 2.5 kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications.								Sqm	
		Qty Vide Item No. 7						9720.00		
								9720.00	13.35	**129762.00**
9	Providing and laying **bituminous concrete 40 mm thick** with hot mix plant, using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause No. 500.9 complete in all respects complete as per specifications. MORTH Specification No. 509 - **using 40/60 TPH capacity H.M.P. with Mechanical Paver Gr-II (30 mm to 45 mm) with 6 % VG-30 Bitumen**								Cum	
	1st A Cross Chamundeshwari Layout									
	Ch: 0.00 to 30.00 M	1	30.00	4.60	4.50	4.55	0.040	5.46		
	Ch: 30.00 to 60.00 M	1	30.00	4.50	4.65	4.58	0.040	5.49		
	Ch: 60.00 to 77.00 M	1	17.00	4.65	4.85	4.75	0.040	3.23		
	Opposite Pilleppa House									
	Ch: 0.00 to 30.00 M	1	30.00	7.00	7.00	7.00	0.040	8.40		
	Ch: 30.00 to 58.50 M	1	28.50	7.00	6.50	6.75	0.040	7.70		
	1st Main Ganesh Temple Road									
	Ch: 0.00 to 30.00 M	1	30.00	6.20	6.10	6.15	0.040	7.38		
	Ch: 30.00 to 60.00 M	1	30.00	6.10	6.50	6.30	0.040	7.56		
	Ch: 60.00 to 90.00 M	1	30.00	6.50	6.40	6.45	0.040	7.74		
	Ch: 90.00 to 103.00 M	1	13.00	6.40	7.00	6.70	0.040	3.48		
	1st Main Road Chamundeshwari Layout									
	Ch: 0.00 to 30.00 M	1	30.00	5.70	5.70	5.70	0.040	6.84		
	Ch: 30.00 to 60.00 M	1	30.00	5.70	6.00	5.85	0.040	7.02		
	Ch: 60.00 to 90.00 M	1	30.00	6.00	4.40	5.20	0.040	6.24		
	Ch: 90.00 to 120.00 M	1	30.00	4.40	4.40	4.40	0.040	5.28		
	Ch: 120.00 to 150.00 M	1	30.00	4.40	4.85	4.63	0.040	5.55		
	Ch: 150.00 to 180.00 M	1	30.00	4.85	5.50	5.18	0.040	6.21		
	Ch: 180.00 to 210.00 M	1	30.00	5.50	5.90	5.70	0.040	6.84		
	Ch: 210.00 to 240.00 M	1	30.00	5.90	5.70	5.80	0.040	6.96		
	Ch: 240.00 to 270.00 M	1	30.00	5.70	8.00	6.85	0.040	8.22		
	Ch: 270.00 to 273.00 M	1	3.00	8.00	8.20	8.10	0.040	0.97		
	1st Cross Chamundeshwari Layout									
	Ch: 0.00 to 30.00 M	1	30.00	4.65	6.00	5.33	0.040	6.39		
	Ch: 30.00 to 60.00 M	1	30.00	6.00	4.45	5.23	0.040	6.27		
	Ch: 60.00 to 63.50 M	1	3.50	4.45	4.90	4.68	0.040	0.65		
	5th Main Road Chamundeshwari Layout									
	Ch: 0.00 to 30.00 M	1	30.00	5.30	5.30	5.30	0.040	6.36		
	Ch: 30.00 to 60.00 M	1	30.00	5.30	5.70	5.50	0.040	6.60		
	Ch: 60.00 to 90.00 M	1	30.00	5.70	5.40	5.55	0.040	6.66		
	Ch: 90.00 to 120.00 M	1	30.00	5.40	4.30	4.85	0.040	5.82		
	Ch: 120.00 to 150.00 M	1	30.00	4.30	5.80	5.05	0.040	6.06		
	Ch: 150.00 to 180.00 M	1	30.00	5.80	6.00	5.90	0.040	7.08		
	Ch: 180.00 to 210.00 M	1	30.00	6.00	5.30	5.65	0.040	6.78		
	Ch: 210.00 to 240.00 M	1	30.00	5.30	5.35	5.33	0.040	6.39		
	Ch: 240.00 to 270.00 M	1	30.00	5.35	4.30	4.83	0.040	5.79		

Sreethe. N K
Assistant Engineer

Assistant Executive Engineer

Description	No.	L	B1	B2	Av.,B	D	Qty	Rate	Amount
Ch: 0.00 to 300.00 M	1	30.00	4.30	4.80	4.55	0.040	5.46		
Ch: 300.00 to 330.00 M	1	30.00	4.80	4.40	4.60	0.040	5.52		
Ch: 330.00 to 351.40 M	1	21.40	4.40	7.50	5.95	0.040	5.09		
3rd Cross Nanjappa Layout									
Ch: 0.00 to 30.00 M	1	30.00	4.60	4.70	4.65	0.040	5.58		
Ch: 30.00 to 51.50 M	1	21.50	4.70	4.70	4.70	0.040	4.04		
Ch: 0.00 to 30.00 M	1	30.00	4.40	4.80	4.60	0.040	5.52		
Ch: 30.00 to 60.00 M	1	30.00	4.80	4.70	4.75	0.040	5.70		
Ch: 60.00 to 63.50 M	1	3.50	4.70	4.20	4.45	0.040	0.62		
2nd Cross Nanjappa Layout									
Ch: 0.00 to 30.00 M	1	30.00	4.40	4.50	4.45	0.040	5.34		
Ch: 30.00 to 45.30 M	1	15.30	4.50	4.70	4.60	0.040	2.82		
2nd Cross Nanjappa Layout									
Ch: 0.00 to 30.00 M	1	30.00	4.70	5.00	4.85	0.040	5.82		
Ch: 30.00 to 44.60 M	1	14.60	5.00	4.40	4.70	0.040	2.74		
1st Cross Nanjappa Layout									
Ch: 0.00 to 30.00 M	1	30.00	4.80	5.60	5.20	0.040	6.24		
Ch: 30.00 to 55.60 M	1	25.60	5.60	4.70	5.15	0.040	5.27		
1st A Cross Nanjappa Layout									
Ch: 0.00 to 30.00 M	1	30.00	4.30	4.00	4.15	0.040	4.98		
Ch: 30.00 to 55.20 M	1	25.20	4.00	4.30	4.15	0.040	4.18		
1st Cross Nanjappa Layout									
Ch: 0.00 to 30.00 M	1	30.00	6.10	5.00	5.55	0.040	6.66		
Ch: 30.00 to 60.00 M	1	30.00	5.00	4.70	4.85	0.040	5.82		
Ch: 60.00 to 75.50 M	1	15.50	4.70	4.60	4.65	0.040	2.88		
2nd Cross Nanjappa Layout									
Ch: 0.00 to 30.00 M	1	30.00	5.60	5.80	5.70	0.040	6.84		
Ch: 30.00 to 60.00 M	1	30.00	5.80	4.70	5.25	0.040	6.30		
Ch: 60.00 to 78.50 M	1	18.50	4.70	4.60	4.65	0.040	3.44		
2nd A Cross Royal Apartment									
Ch: 0.00 to 30.00 M	1	30.00	6.80	6.50	6.65	0.040	7.98		
Ch: 30.00 to 60.00 M	1	30.00	6.50	5.65	6.08	0.040	7.29		
Ch: 60.00 to 90.00 M	1	30.00	5.56	5.50	5.53	0.040	6.64		
Ch: 90.00 to 120.00 M	1	30.00	5.50	4.80	5.15	0.040	6.18		
Ch: 120.00 to 149.50 M	1	29.50	4.80	5.80	5.30	0.040	6.25		
5th A Cross									
Ch: 0.00 to 21.60 M	1	21.60	5.40	5.60	5.50	0.040	4.75		
5th Cross									
Ch: 0.00 to 30.00 M	1	30.00	5.60	5.10	5.35	0.040	6.42		
Ch: 30.00 to 60.00 M	1	30.00	5.10	5.00	5.05	0.040	6.06		
Ch: 60.00 to 90.00 M	1	30.00	5.00	4.40	4.70	0.040	5.64		
Ch: 90.00 to 95.60 M	1	5.60	4.40	4.90	4.65	0.040	1.04		
6th A Cross									
Ch: 0.00 to 16.30 M	1	16.30	4.50	5.60	5.05	0.040	3.29		
6th Cross									
Ch: 0.00 to 30.00 M	1	30.00	4.80	5.40	5.10	0.040	6.12		
Ch: 30.00 to 60.00 M	1	30.00	5.40	4.70	5.05	0.040	6.06		
Ch: 60.00 to 90.00 M	1	30.00	4.70	4.50	4.60	0.040	5.52		
Ch: 90.00 to 97.10 M	1	7.10	4.50	4.80	4.65	0.040	1.32		
3rd A Cross									
Ch: 0.00 to 23.70 M	1	23.70	5.10	5.20	5.15	0.040	4.88		
3rd Cross									
Ch: 0.00 to 24.75 M	1	24.75	4.50	4.80	4.65	0.040	4.60		
Ch: 0.00 to 24.75 M	1	24.75	4.50	4.80	4.65	0.040	4.60		
							388.96		

Assistant Engineer

Assistant Executive Engineer
Vidyaranyapura Sub Div
BBMP, Bangalore

Sl No	Description	No.	L	B1	B2	Av.,B	D	Qty	Rate	Amount
								388.80	8306.64	9622.00
	Sub Total									6561384.00
	GST @ 12%									787366.00
									Total	7348750.00
Rupees Seventy Three Lakh(s) Forty Eight Thousand Seven Hundred Fifty Only										

Assistant Engineer
Ward No. 10

Assistant Executive Engineer
Vidayranyapura Sub Division